We claim:

1. A mixture comprising a surfactant and a cosurfactant, the cosurfactant being an amphiphilic polymer having one or more hydrophobic subunits (A) and one or more hydrophilic subunits (B), wherein one or more hydrophobic subunits (A) have been formed on the basis of a polyisobutene block whose polyisobutene macromolecules have terminal double bonds to an extent of at least 50 mol%.

2. The mixture according to claim 1, wherein every hydrophobic subunit (A) has been formed on the basis of a polyisobutene block whose polyisobutene macromolecules have terminal double bonds to an extent of at least 50 mol%.

3. The mixture according to claim 1 or 2, wherein the polyisobutene block has been formed from polyisobutene macromolecules of which at least 60 mol%, preferably at least 80 mol%, based on the total number of polyisobutene macromolecules, have terminal double bonds.

4. The mixture according to any one of claims 1 to 3, wherein the polyisobutene block has a number-average molecular weight M_n in the range from 200 to 20 000 daltons, preferably in the range from 200 to 5000 daltons.

5. The mixture according to any of claims 1 to 4, wherein the polyisobutene block has a polydispersity index (PDI) in the range from 1.05 to 10, preferably in the range from 1.05 to 5, more preferably in the range from 1.05 to 2.

6. The mixture according to any of claims 1 to 5, wherein one or more hydrophilic subunits (B) have been formed from repeat ethylene oxide units or ethylene oxide/propylene oxide units, preferably with a fraction of 0-50% propylene oxide, more preferably with a fraction of 5-20% propylene oxide units.

7. The mixture according to any of claims 1 to 5, wherein one or more hydrophilic subunits (B) have been formed from monomer units selected from the following group: (meth)acrylic acid, including partly or fully neutralized (meth)acrylic acid, (meth)acrylates, vinyl acetate, vinyl alcohol, vinylpyrrolidone, allyl alcohol, styrene and hydrophilic derivatives of the monomer units listed above, or from mixtures thereof.

8. The mixture according to any of claims 1 to 7, wherein the polyisobutene block is functionalized with introduction of polar groups and the functionalized polyisobutene block is then modified further if appropriate.

9. The mixture according to claim 8, wherein the functionalization of the polyisobutene block is carried out by a reaction which is selected from the following list:

i) reaction with aromatic hydroxyl compounds in the presence of an alkylation catalyst to obtain aromatic hydroxyl compounds alkylated with polyisobutenes,

ii) reaction of the polyisobutene block with a peroxy compound to obtain an epoxidized polyisobutene,

iii) reaction of the polyisobutene block with an alkene which has an electron-poor double bond (enophile) in an ene reaction,

iv) reaction of the polyisobutene block with carbon monoxide and hydrogen in the presence of a hydroformylation catalyst to obtain a hydroformylated polyisobutene,

v) reaction of the polyisobutene block with a phosphorus halide or a phosphorus oxychloride to obtain a polyisobutene functionalized with phosphone groups,

vi) reaction of the polyisobutene block with a borane and subsequent oxidative cleavage to obtain a hydroxylated polyisobutene,

vii) reaction of the polyisobutene block with an SO_3 source, preferably acetyl sulfate, to obtain a polyisobutene with terminal sulfonic acid groups,

viii) reaction of the polyisobutene block with nitrogen oxides and subsequent hydrogenation to obtain a polyisobutene with terminal amino groups.

10. The mixture according to any of claims 1 to 9, wherein the cosurfactant has an A_pB_q structure where p and q are each independently an integer from 1 to 8, or a comb structure composed of A and B.

11. The mixture according to any of claims 1 to 10, wherein the surfactant used is a surfactant with narrow homolog distribution, in particular a surfactant obtained under DMC catalysis.

12. The use of a mixture according to any of claims 1 to 11 for stabilizing emulsions, in particular microemulsions.

13. A microemulsion comprising a surfactant and a cosurfactant, wherein a surfactant as defined in any of claims 1 to 10 and/or a surfactant with narrow homolog distribution, especially a surfactant obtained under DMC catalysis, is used.

14. The use of a mixture according to any of claims 1 to 11 or of a microemulsion according to claim 13 as detergent, emulsifier, foam regulator, wetting agent for hard surfaces or as reaction medium for organic, inorganic, bioorganic or photochemical reactions.

15. The use according to claim 14 in detergents, surfactant formulations for the cleaning of hard surfaces, humectants, cosmetic, pharmaceutical and crop protection formulations, paints, coatings, adhesives, leather degreasing compositions, formulations for the textile industry, fiber processing, metal processing, food industry, water treatment, paper industry, fermentation, mineral processing, fire protection or in emulsion polymerizations.

16. A detergent, cleaner, wetting agent, coating, adhesive, leather degreasing composition, humectant or textile treatment composition or a pharmaceutical, crop protection or cosmetic formulation, in particular sunscreen, skincare or hair styling composition, shower gel, shampoo, bath additive or scent oil, comprising, as well as customary ingredients, a mixture according to any of claims 1 to 11 or a microemulsion according to claim 13.